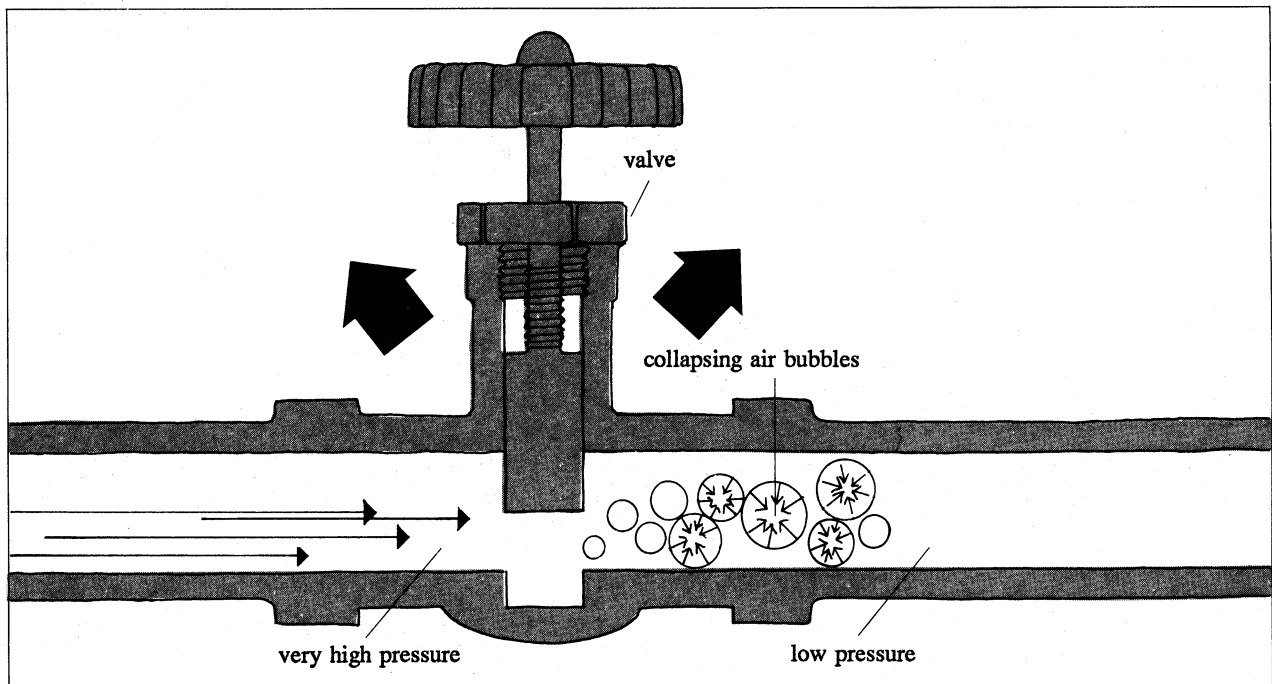


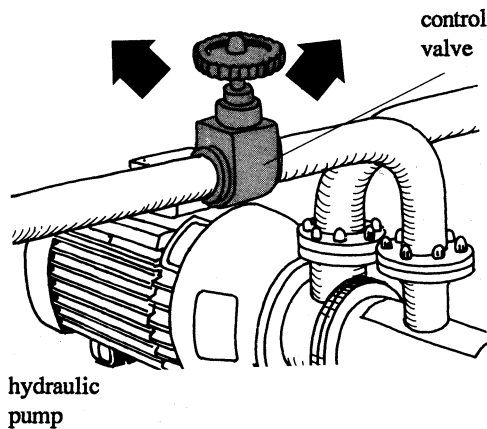
# LARGE AND RAPID CHANGES IN PRESSURE PRODUCE "CAVITATION" NOISE

When large pressure drops occur rapidly in liquids, the bubbles produced immediately implode – explode inwards. The result is a roaring noise – and strong vibrations. This so-called cavitation noise is most common in hydraulic systems. Cavitation can be avoided by bringing about the pressure reduction in several small steps.

## Principle

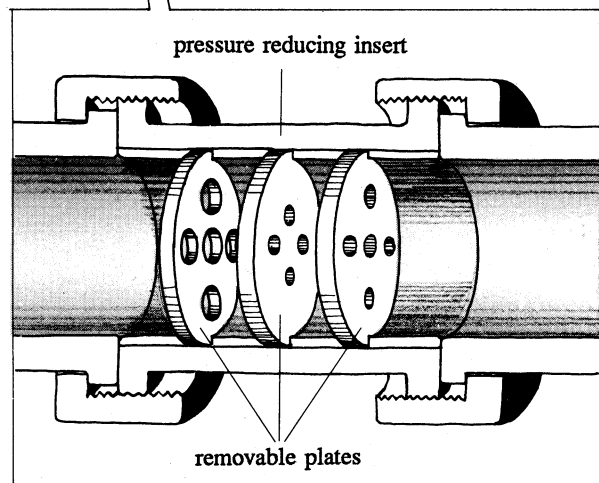
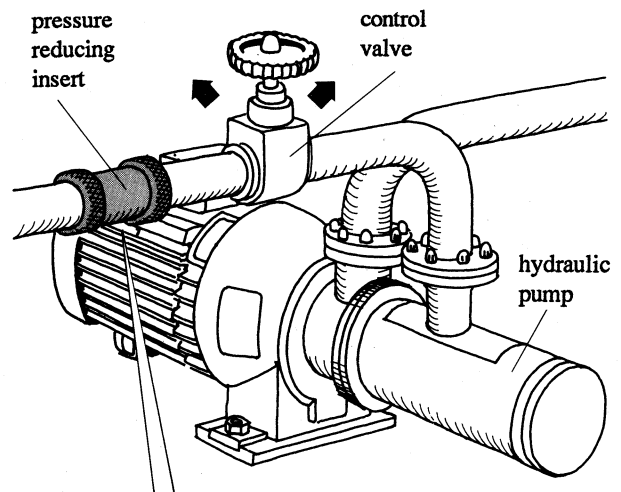


## Application with pumps and valves



### Example

In a hydraulic system, the full pump capacity is employed only in exceptional cases. Usually, the pressure is greatly reduced using a control valve. Cavitation can then arise, producing loud noise from the valve. The noise is conducted as solid-borne sound to connected machines and building structures.



### Control Measure

A pressure-reducing insert is placed in the same pipe as the control valve. The insert has removable plates with different perforations. The plates are selected so that the insert will not produce a greater pressure drop than that required to prevent cavitation.